IN THE SPECIFICATION

Please amend the specification as follows:

Please substitute the paragraph beginning at page 2, line 7, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- In such semiconductor exposure apparatuses, in order to maintain constant the integrated exposure amount of a wafer as determined by the image plane illuminance and the scan speed, the image plane illuminance has to be kept constant. In order to meet such a requirement, in conventional scan type semiconductor exposure apparatuses, a photodetector is disposed at a position in an illumination system which is optically conjugate with the reticle, and an applied electric power to a discharge lamp is controlled so that an output of the photodetector becomes constant. --

Please substitute the paragraph beginning at page 2, line 19, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Such a technique, however, involves a problem that, even if the control is made to keep the output of the photodetector constant, the integrated exposure amount of a wafer cannot be made constant. --

Please substitute the paragraph beginning at page 8, line11, and ending on page 9, line 1, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Alternatively, as a preparation, while an applied electric power to the discharge lamp may be kept constant and while the scan motion may be performed at a speed lower than an ordinary scan speed, outputs of the photodetector and detection results of reflection light detecting means, for detecting reflection light from the pattern surface of the original, may be obtained in relation to each of the movement positions obtained. In an actual exposure process of the substrate, at each of the movement positions in the scan motion, any influence of reflection light may be removed or reduced on the basis of an output of the photodetector and a result of detection by the reflection light detecting means. Also, the output of the light source may be controlled on the basis of an output of the photodetector with the influence of reflection light being removed or reduced. --

Please substitute the paragraph beginning at page 16, line 16, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Figure 3 shows details of the variable slit portion 43. Denoted in the drawing at 100a - 100k and 101a - 101k are upper slit plates and lower slit plates which are movable in directions depicted by an arrow 129. Denoted at 102a - 102k and 103a - 103k are guides for these slit plates. Denoted at 104a - 104k and 105a - 105k are rotatable protrusions which are movable integrally with the slit plates. Denoted at 106 and 107 are spring plates extending through the rotatable protrusions to connect the slits to each other. Denoted at 110 - 113 and 120 - 123 are motors for driving particular slit plates. --

Please substitute the paragraph beginning at page 17, line 9, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Figure 5 shows the spectral reflectivity of the elliptical mirror 3. The elliptical mirror 3 has such a characteristic that only light of about 320 - 400 nm is reflected thereby. --

Please substitute the paragraph beginning at page 17, line 13, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- In Figure 6, the broken line and the solid line depict the interception characteristics of the middle-band i-line filter 6 and the narrow-band i-line filter 32, respectively. The interception characteristic of the middle-band i-line filter 6 is equivalent to that of the narrow-band i-line filter 32 when the same is expanded by a few tens of nm. --

Please substitute the paragraph beginning at page 24, line 13, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Like a conventional constant-illuminance mode, an image plane illuminance is specified. However, since the applied electric power to the i-line lamp 1 is controlled so that the illuminance becomes constant, the purity will change. The timing for changing the applied electric power can be specified in relation to each wafer or each job. --

Please substitute the paragraph beginning at page 24, line 21, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- This is a mode added in the semiconductor exposure apparatus of this embodiment. The purity of the i-line lamp 1 is specified. The applied electric power is controlled on the basis of the purity measurement, to maintain the specified purity. The timing for changing the applied electric power can be specified in relation to each wafer or each job. --

Please substitute the paragraph beginning at page 26, line 6 , with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- The semiconductor exposure apparatus of this embodiment has an exposure shutter protecting function, as has been described with reference to "(C) Improving the durability of the narrow-band i-line filter and the high-speed exposure shutter:". However, the protection is not complete, because there is a possibility that impurities are mixed into a cooling air for the shutter blade 80, which impurities may be deposited on the surface of the shutter blade 80 to cause a decrease of the surface reflectivity of the shutter blade 80 and an increase of thermal absorption. --

Please substitute the paragraph beginning at page 26, line 18, and ending on page 27, line 15, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- In consideration of it, the semiconductor exposure apparatus of this embodiment is provided with a broad-band detector 23, for directly detecting a wavelength in the same bandwidth region as the light to be collected by the elliptical mirror 3, as well as a photodetector

24 for detecting reflection light from the shutter blade 80. Through the operation of the CPU (not shown) inside the illumination system control 71, after the i-line lamp 1 is turned on and after the discharge of the i-line lamp becomes stable, and when the blocking plate 4 is in its open state, analog signal outputs of the respective detectors are picked up at intervals of a few mSec. These signals are then digitalized by an A/D converter (not shown), and thereafter calculation of a ratio of measurement data of the detectors, that is, calculation of the surface reflectivity of the shutter blade 80, is performed. If the result of surface reflectivity calculation is beyond a tolerable range met with respect to a value, an i-line lamp 1 extinction signal is promptly supplied to the lighting device 2. Also, this disorder is signaled to the general control 72. In response to reception of that signal, the general control 72 stops the operation of the apparatus, and presents an alarm and display. --

Please substitute the paragraph beginning at page 28, line 26, and ending on page 29, line 9, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- The semiconductor exposure apparatus of this embodiment has a function for reducing astigmatism of a projection lens, to be produced during the exposure process. In this embodiment, at the stage of projection lens designing, a slit shape as well as an illuminance distribution inside a slit effective to minimize the production of astigmatism due to execution of the exposure process are determined in relation to each of the illumination modes, and they are reproduced and accomplished in the semiconductor exposure apparatus. --

Please substitute the paragraph beginning at page 29, line 10, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Figure 9A shows an example of a slit shape and an illuminance distribution inside a slit, in a conventional semiconductor exposure apparatus. As seen from the drawing, generally in conventional semiconductor exposure apparatuses, the same illuminance distribution in the scan direction is defined at every point on the slit. Namely, substantially the same shape is defined at Sa, Sb and Sc in Figure 9A. This is to accomplish uniformness of integrated exposure amount in the slit direction. --

Please substitute the paragraph beginning at page 29, line 20, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Further, in some conventional semiconductor exposure apparatuses, the slit width at each point on the slit is made variable so that the same illuminance integrated amount can be provided in the scan direction. This is to accomplish uniformness of integrated exposure amount in the slit direction. On that occasion, substantially the same area is defined at Sa, Sb and Sc in Figure 9A. --

Please substitute the paragraph beginning at page 31, line 14, and ending on page 32, line 2, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- In the semiconductor exposure apparatus of this embodiment, when a reticle 50 is placed on the reticle stage 52 the first time, the reticle average diffraction rate and the reticle transmissivity are measured. This measurement is performed under the same illumination mode as the practical exposure process (the same stop 35 in the actual exposure). Here, the reticle diffraction sensor 66 of Figure 7 is held stationary at about a central position in the exposure light flux, and it operates to perform integrated measurement of the light energy impinging thereon during the scan motion of the reticle 50. From the ratio in integration measurement value among the sensors 132 - 136 of the reticle diffraction sensor 66, the average diffraction rate being set is calculated. --

Please substitute the paragraph beginning at page 34, line 18, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- As a matter of course, for making uniform the integrated exposure amount along the scan direction, the light energy distribution in the scan direction thus accomplished provides the same value at any slit position, when integrated in the scan direction. --

Please substitute the paragraph beginning at page 36, line 18, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- (3) The reticle stage 52 is scanningly moved through the whole exposure region, at a speed sufficiently slower than that in an ordinary exposure process. The measured values of the

reticle surface illuminance detector 39 at each reticle position are stored into a memory inside the illumination system control 71. --

Please substitute the paragraph beginning at page 39, line 12, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- (1) A method based on "correction with the reticle reflection light detector 41" has been described in the introductory part of the specification. --

Please substitute the paragraph beginning at page 39, line 16, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- (2) If the reticle transmissivity is high and the wafer reflectivity is high, there may be cases in which the influence of reflection light from a wafer appears on the reticle surface illuminance detector 39. On that occasion, the method described with reference to the above embodiment may be done similarly, while a reflection plate having substantially the same reflection factor as that of an actual wafer is disposed at the wafer position. --

Please substitute the paragraph beginning at page 40, line 8, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Figure 11 is a flow chart of a procedure for the manufacture of microdevices such as semiconductor chips (e.g., ICs or LSIs), liquid crystals panels, or CCDs, for example. --

Please substitute the paragraph beginning at page 40, line 12, and ending on page 41, line 2, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

-- Step 1 is a design process for designing a circuit of a semiconductor device. Step 2 is a process for making a mask on the basis of the circuit pattern design. Step 3 is a process for preparing a wafer by using a material such as silicon. Step 4 is a wafer process (called a pre-process) wherein, by using the so prepared mask and wafer, circuits are practically formed on the wafer through lithography. Step 5 subsequent to this is an assembling step (called a post-process) wherein the wafer having been processed by step 4 is formed into semiconductor chips. This step includes an assembling (dicing and bonding) process and a packaging (chip sealing) process. Step 6 is an inspection step wherein an operation check, a durability check and so on for the semiconductor devices provided by step 5, are carried out. With these processes, semiconductor devices are completed and they are shipped (step 7). --

IN THE CLAIMS:

Please AMEND claims 1, 2, 5-11 and 15 as follows. A marked-up copy of the claims showing the changes made thereto is attached in Appendix A. For the Examiner's convenience, all claims currently pending in this application have been reproduced below: